

## AMENDMENTS TO THE CLAIMS

### **Claims 1-14 (Canceled)**

#### **Claim 15 (New)**      A punching unit comprising:

a plurality of punches and dies for punching holes in a sheet member to be punched, said punches being movable in a moving direction;

a reciprocating member capable of reciprocating in a reciprocating direction orthogonal to the moving direction of said punches;

a plurality of cams and cam followers that are operably interposed between said reciprocating member and said plurality of punches so that reciprocating movement of said reciprocating member converts to vertical movement of said punches between punching and non-punching positions;

wherein said plurality of punches are grouped into a first group of punches that is composed of a predetermined number of punches and a second group of punches that includes one of said punches of said first group and that has a smaller number of punches than said predetermined number of punches of said first group;

wherein said plurality of cams and cam followers include cams and cam followers corresponding to said first group of punches that are arranged to produce a predetermined number of holes by vertically moving said punches of said first group in response to reciprocation of said reciprocating member within a first movable range;

wherein said plurality of cams and cam followers include cams and cam followers corresponding to said second group of punches that are arranged to produce a punching state for a smaller number of punches than the predetermined number of punches by vertically moving said punches of said second group in response to reciprocation of said reciprocating member within a second movable range;

wherein said plurality of cams are each formed in a cam plate extending in the reciprocating direction, have at least one V-shaped portion for moving one of said punches from said non-punching position to said punching position and back to said non-punching position, and have

straight sections connecting with said at least one V-shaped portion that hold the one of said punches at said non-punching position;

wherein at least one of said cams is exclusively used with said first group or said second group, and each of said at least one of said cams that is exclusively used engages said cam follower with said V-shaped portion thereof when producing said punching state of said first movable range or said second movable range, and engages said cam follower continuously with said straight portion across its entire range when not producing said punching state of said first movable range or second movable range; and

wherein said cam that corresponds to said one of said first group that is also included in said second group has a first said V-shaped portion that engages with said cam follower in said first movable range and a second said V-shaped portion that engages with said cam follower in said second movable range.

**Claim 16 (New/Withdrawn)** The punching unit of claim 15, wherein said first movable range is a range which said reciprocating member reaches in advancing in one direction from a home position defined with respect to a main frame supporting said reciprocating member and said second movable range is a range which said reciprocating member reaches in advancing in the other direction from said home position.

**Claim 17 (New/Withdrawn)** The punching unit of claim 16, wherein:  
first and second neutral positions are provided on opposite sides from said home position in said first and second movable ranges, respectively, said home position being interposed between said first and second neutral positions; and

said reciprocating member vertically moves said first group of said plurality of punches or said second group of said plurality of punches in reciprocating in said first movable range or said second movable range.

**Claim 18 (New/Withdrawn)** The punching unit of claim 15, wherein:

said first group comprises three of said punches arrayed at a predetermined pitch, and said one of said first group that is also included in said second group is positioned as a center punch of said three of said punches; and

said second group comprises two punches including said center punch and a dedicated punch of said plurality of punches that is dedicated for punching two holes, said dedicated punch being disposed between said center punch and one other of said first group that is at one end of said three of said punches.

**Claim 19 (New/Withdrawn)** The punching unit of claim 18, wherein:

said cam corresponding to said center punch has, continuously and via a linear portion, the first said V-shaped portion that engages with said cam follower to move said center punch from the non-punching position to the punching position when said reciprocating member moves in one direction and the second said V-shaped portion that moves said center punch from the non-punching position to the punching position when said reciprocating member moves in the other direction.

**Claim 20 (New)** The punching unit of claim 15, wherein said first movable range is a range in which said reciprocating member has moved when it has advanced by one step in one direction of reciprocation from a home position with respect to a main frame that supports said reciprocating member and said second movable range is a range in which said reciprocating member has moved when it has advanced by another step in said one direction of reciprocation.

**Claim 21 (New)** The punching unit of claim 20, wherein:

first and second neutral positions are provided on opposite sides from said home position in said first and second movable ranges, respectively, said home position being interposed between said first and second neutral positions; and

said reciprocating member vertically moves said first group of said plurality of punches or said second group of said plurality of punches in reciprocating in said first movable range or said second movable range.

**Claim 22 (New)** The punching unit of claim 15, wherein said first group comprises three or more of said punches arrayed at a predetermined pitch, and said second group comprises at least two punches of said punches of said first group.

**Claim 23 (New)** The punching unit of claim 15, further comprising movement restricting means for restricting said reciprocating member from moving in the second movable range or the first movable range when being used in the first movable range or the second movable range, respectively.

**Claim 24 (New)** The punching unit of claim 23, wherein said movement restricting means comprises a stopper for blocking movement of said reciprocating member at a predetermined position with respect to said main frame.

**Claim 25 (New/Withdrawn)** The punching unit of claim 16, wherein:  
said first group comprises three of said punches arrayed at a predetermined pitch, and said one of said first group that is also included in said second group is positioned as a center punch of said three of said punches; and  
said second group comprises two punches including said center punch and a dedicated punch of said plurality of punches that is dedicated for punching two holes, said dedicated punch being disposed between said center punch and one other of said first group that is at one end of said three of said punches.

**Claim 26 (New/Withdrawn)** The punching unit of claim 17, wherein:  
said first group comprises three of said punches arrayed at a predetermined pitch, and said one of said first group that is also included in said second group is positioned as a center punch of said three of said punches; and  
said second group comprises two punches including said center punch and a dedicated punch of said plurality of punches that is dedicated for punching two holes, said dedicated punch being

disposed between said center punch and one other of said first group that is at one end of said three of said punches.

**Claim 27 (New/Withdrawn)**      The punching unit of claim 25, wherein:

said cam corresponding to said center punch has, continuously and via a linear portion, the first said V-shaped portion that engages with said cam follower to move said center punch from the non-punching position to the punching position when said reciprocating member moves in one direction and the second said V-shaped portion that moves said center punch from the non-punching position to the punching position when said reciprocating member moves in the other direction.

**Claim 28 (New/Withdrawn)**      The punching unit of claim 26, wherein:

said cam corresponding to said center punch has, continuously and via a linear portion, the first said V-shaped portion that engages with said cam follower to move said center punch from the non-punching position to the punching position when said reciprocating member moves in one direction and the second said V-shaped portion that moves said center punch from the non-punching position to the punching position when said reciprocating member moves in the other direction.